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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/809,925 | 03/25/2004 | Hiroshi Yamazaki | 1324.70190 | 6761 |
| 7590 | 06/23/2009 | EXAMINER | | |
| Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Drive Chicago, IL 60606 | | OSORIO, RICARDO | | |
| | | ART UNIT | PAPER NUMBER | |
| | | 2629 | | |
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| | | | 06/23/2009 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/809,925 | YAMAZAKI, HIROSHI | |
| | Examiner | Art Unit | |
| | RICARDO L. OSORIO | 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 March 2009.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 1-9 is/are allowed.
 6) Claim(s) 10-12 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Go (US 6,320,566 B1) hereinafter referred to as Go '566.

3. With regard to claim 11, Go '566 discloses **a timing controller** (see column 4 line 10, "clock signal generator") **for a liquid crystal display device**, (see column 4 lines 1-2) **characterized in that data signals of odd-number dots and data signals of even-number dots** (see column 4, lines 20-24) **are output every horizontal line** (see FIG. 6A and 6B described in column 2, lines 46-48 in conjunction with FIG. 10 further described at column 6, lines 20-25) **while displacing the phase between the data signals of the odd-number dots and even-number dots by 180 degrees**. (see FIG. 10 and elements 140 and 150 further described as high and low video data at column 7, lines 1-16 and as illustrated in FIGs 10-12; additionally see column 6, lines 20-25).

Claim Rejections - 35 USC § 103

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Go '566 and further in view of Jeong (US 6,335,721 B1) hereinafter referred to as Jeong '721.
5. With regard to claim 10, Go '566 clearly teaches **a data driver IC** (see Go '566 column 1, line 52 “data driver IC 11”) **for a liquid crystal display device** (see Go '566 column 1, lines 10-11), **characterized in that the data driver IC inputs a first clock signal** (see Go '566 FIG. 12, FD1, and as described at column 6, lines 37-65, further illustrated at FIG. 11) **and a second clock signal in reverse relation with the first clock signal** (see Go '566 FIG. 12, FD2, and as described at column 6, lines 37-65, further illustrated at FIG. 11). **a selection signal** (see Jeong '721 column 4 lines 43-end and continued at column 5, lines 1-8), **select the first or second clock signal based on the selection signal, and a can selectively latch data signals with the first or second clock signal** (see Jeong '721 column 4 lines 61-end and continued at column 5, lines 1-8).
6. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Go '566” and further in view of Ogata et al., Japanese Patent Number JP 407329337A. Hereinafter referred to as “Ogata”.
7. With regard to claim 12, Go '566 discloses **a timing controller** (see column 4, lines 10-13 describing a “clock signal generator”; furthermore described in detail at column 6, lines 20-21 described as a “controller IC 100”) **for a liquid crystal display device** (see column 1, lines 10-11) However, Go '566 fails to discloses **a data signal of a dot is consisted of a plurality of bits, and output pins for data signals are arranged so that the data signal of an odd-number**

dot of each bit of each color and the data signal of an even-number dot of the same bit are adjacent to each other.

8. Ogata discloses **a data signal of a dot is consisted of a plurality of bits** (see abstract discussing bits), **and output pins** (see demonstrative FIG 1 illustrating odd lines 1, 3...n-1 adjacent to even lines 2, 4... n-1) **for data signal of an odd-number dot of each bit of each color** (see abstract “data signal having odd bits”) **of each bit** (see abstract “of one line”) **and the data signal of an even-number dot** (see abstract “data signal having even bits”) **of the same bit** (see abstract “of one line”) **are adjacent to one another** (see demonstrative FIG 1 illustrating odd lines 1, 3...n-1 adjacent to even lines 2, 4... n-1).

9. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the display device of Go ‘566 into the data signal line arrangement of Ogata because as disclosed in Ogata, the arrangement “reduces the capacity of power source” and “prevents the decrease of image quality level.”

Allowable Subject Matter

1. Claims 1-9 are allowed.

Response to Arguments

2. Applicant's arguments filed 3/16/2009 have been fully considered but they are not persuasive.

Applicant's arguments regarding claims 10-12 have been fully considered by the examiner, however, based on the above rejections, examiner disagrees with applicant's argument and maintains the rejection of claims 10-12.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICARDO L. OSORIO whose telephone number is (571) 272-7676. The examiner can normally be reached on MONDAY-THURSDAY 7:00 am-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AMARE MENGISTU can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RICARDO L OSORIO/
Primary Examiner, Art Unit 2629